

REMARKS

Claims 31-51 remain in this application. Claims 1-20 have been cancelled without prejudice. Claims 31-51 have been added. The Applicants respectfully request reconsideration of this application in view of the above amendments and the following remarks.

35 U.S.C. §102(e) Rejection - Henley

The Examiner has rejected claims 1, 2, 4, 5, 7, 8, 10, 13-17 and 20 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,207,005 issued to Henley et al.

Claims 1, 2, 4, 5, 7, 8, 10, 13-17 and 20 have been cancelled herein, so it is believed the rejection is moot. It is believed that new claims 31-51 are patentable over U.S. Patent No. 6,207,005 issued to Henley et al.

35 U.S.C. §102(b) Rejection - Zhang, et al.

The Examiner has rejected claims 1, 2, 4, 5, 7, 8 and 10-13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,578,520 issued to Zhang, et al.

Claims 1, 2, 4, 5, 7, 8 and 10-13 have been cancelled herein, so it is believed the rejection is moot. It is believed that new claims 31-51 are patentable over U.S. Patent No. 5,578,520 issued to Zhang, et al.

35 U.S.C. §102(e) Rejection – Dordi et al

The Examiner has rejected claims 1-3, 5-6 and 8-9 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,267,853 issued to Dordi et al.

Claims 1-3, 5-6 and 8-9 have been cancelled herein, so it is believed the rejection is moot. It is believed that new claims 31-51 are patentable over U.S. Patent No. 6,267,853 issued to Dordi et al.

35 U.S.C. §103(a) Rejection – Henley et al. in view of Zhang et al.

The Examiner has rejected claims 18-19 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,207,005 issued to Henley et al in view of U.S. Patent No. 5,578,520 issued to Zhang, et al.

Claims 18-19 have been cancelled herein, so it is believed the rejection is moot. It is believed that new claims 31-51 are patentable over U.S. Patent Nos. 6,207,005 and 5,578,520.

New Claims Believed To Be Allowable

Claim 31 pertains to a wafer processing apparatus comprising *“a plurality of chemical vapor deposition chambers, the chemical vapor deposition chambers to deposit metal layers on wafers by chemical vapor deposition; one or more annealing chambers, the one or more annealing chambers integrated with the wafer processing apparatus, the one or more annealing chambers to anneal the metal layers to stabilize hardness of the metal layers prior to chemical mechanical polishing; a robot to move the wafers having the metal layers deposited thereon; and logic to cause the robots to move the wafers having the metal layers deposited thereon from the chemical vapor deposition chambers directly to the one or more annealing chambers shortly after the metal layers have been*

deposited on the wafers". The cited art does not teach or suggest such a wafer processing apparatus. Accordingly, **claim 31** is believed to be allowable. **Claims 32-39** depend from claim 31, and are believed to be allowable therefor, as well as for the recitations set forth in each of these dependent claims.

Claim 40 pertains to a wafer processing apparatus comprising "*one or more annealing chambers, the one or more annealing chambers integrated with the wafer processing apparatus, the one or more annealing chambers to anneal wafers having metal layers thereon to stabilize hardness of the metal layers prior to chemical mechanical polishing; one or more chemical mechanical polishing platforms, the one or more chemical mechanical polishing platforms integrated with the wafer processing apparatus, the one or more chemical mechanical polishing platforms to polish the wafers including the metal layers; a robot to move the wafers having the metal layers deposited thereon; and logic to cause the robot to move the wafers having the metal layers deposited thereon from the one or more annealing chambers directly to the one or more chemical mechanical polishing platforms*". The cited art does not teach or suggest such a wafer processing apparatus. Accordingly, **claim 40** is believed to be allowable. **Claims 42-46** depend from claim 40, and are believed to be allowable therefor, as well as for the recitations set forth in each of these dependent claims.

Claim 47 pertains to a wafer processing apparatus comprising "*one or more chemical mechanical polishing platforms, the one or more chemical mechanical polishing platforms integrated with the wafer processing apparatus, the one or more chemical mechanical polishing platforms to polish wafers having metal layers thereon; one or more annealing chambers, the one or more annealing chambers integrated with the wafer processing apparatus, the one or more annealing chambers to anneal wafers having the metal layers thereon to stabilize hardness of the metal layers after the wafers have been polished; a robot to move the wafers; and logic to cause the robot to move the*

wafers that have been polished from the one or more chemical mechanical polishing platforms directly to the one or more annealing chambers". The cited art does not teach or suggest such a wafer processing apparatus. Accordingly, **claim 47** is believed to be allowable. **Claims 48-51** depend from claim 47, and are believed to be allowable therefor, as well as for the recitations set forth in each of these dependent claims.

Conclusion

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance. Applicants respectfully request that the rejections be withdrawn and the claims be allowed at the earliest possible date.

Request For Telephone Interview

The Examiner is invited to call Brent E. Vecchia at (303) 740-1980 if there remains any issue with allowance of the case.

Request For An Extension Of Time

The Applicants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17 for such an extension.

Charge Our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 8-3-05

Brent E. Vecchia
Brent E. Vecchia
Reg. No. 48,011

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025-1030
(303) 740-1980